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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,934

04/19/2005

Jozef Thomas Martinus Van Beek

NL 021052

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09/27/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

ESTRADA, MICHELLE

ART UNIT

PAPER NUMBER

2823

DATE MAILED: 09/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/531,934

Applicant(s)

VAN BEEK ET AL.

Examiner

Michelle Estrada

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 6-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 10, 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Patel et al. (2005/0074919).

Re claim 1, Patel et al. discloses electromechanical device, in which are consecutively deposited on a substrate a first electroconductive layer (12) in which a first electrode (12) is formed, a first electroinsulating layer (14) of a first material, a second electroinsulating layer (18) of a second material, different from the first material, and a second electroconductive layer in which a second electrode (22) lying opposite the first electrode is formed which together with the first electrode and the first insulating layer forms the device, in which after the second conductive layer (22) has been deposited, the second insulating layer is removed by means of an etching agent that is selective with respect to the material of the second conductive layer, characterized in that for the first material and the second material are selected materials that can be etched only limitedly selectively with respect to each other and for depositing the

second insulating layer on top of the first insulating layer a further layer (20) is deposited of a further material that can be etched selectively with respect to the first material.

Re claim 2, Patel et al. discloses that the material of the further layer is selected such that the second insulating layer can be removed selectively with respect to the further layer.

Re claim 3, Patel et al. discloses that the second insulating layer is first removed locally and preferably selectively with respect to the further layer up to the further layer then the further layer is removed selectively with respect to the first insulating layer after which the second insulating layer removed in its entirety.

Re claim 4, Patel et al. discloses that for the further material of the further layer and for the material of the conducting layers the same material is chosen and for removing the further layer the second electroconductive layer is covered with a masking layer for the etching agent of the further layer.

Re claim 5, Patel et al. disclose that silicon nitride is chosen for the first material and silicon oxide for the second material.

Re claim 10, Patel et al. disclose that all layers are deposited by means of CVD.

Re claim 12, Patel et al. discloses a micro-electromechanical device obtained from implementing a method as claimed in claim 1.

Re claim 13, Patel et al. discloses a micro-electromechanical device as claimed in claim 12 and comprising a tunable capacitor.

***Allowable Subject Matter***

Claims 6-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed 7/14/06 have been fully considered but they are not persuasive. Applicant argues that Patel fails to show a second insulating layer removed by an etching agent that is selective with respect to the material of the second conductive layer. However, Applicant is directed to paragraph [0025] which states that different etchants are needed for different materials, therefore they are selectively etchable with respect each other (See figs. 3C and 3D).

Applicant argues that Patel fails to show a first material and a second material that can be etched only limitedly selectively with respect each other. However, Patel discloses two different materials for this two layer, therefore it is obvious that they are selectively etchable with respect each other.

Applicant argues that Patel also fail to show a further layer deposited of a further material that can be etched selectively with respect to the first material. Applicant is directed to fig. 3D, layer 20 is a metal or a metal alloy which is different to the first material and therefore they are selectively etchable with respect each other

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Estrada whose telephone number is 571-272-1858. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2800.

Art Unit: 2823

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Michelle Estrada", is positioned above the printed name and title.

Michelle Estrada  
Primary Examiner  
Art Unit 2823

ME  
September 21, 2006